Statistics of Insanity

IN GRAHAMSTOWN ASYLUM.

BY

T. DUNCAN GREENLEES, M.D., F.R.S.E.

Reprinted from "South African Medical Record," November, 1905.

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By T. Duncan Greenlees, M.D., F.R.S.E.

A paper read before the C.G.H. (Eastern) Branch, British Medical Association.

A statistical enquiry into the prevalence of insanity in any community is of interest alike to the scientist, the philanthropist, and the legislator, for it is only by this means that we are enabled to ascertain the prevalence of the disease, whether it is on the increase or decrease; and, if the former, the steps advisable to diminish it, and if the latter, the causes that influence its spread.

A wave of enthusiasm is passing over civilised races at the present time, and a warfare is being waged against two of the most fatal diseases that afflict mankind, viz. cancer and tuberculosis; and yet these diseases tend to kill their subjects, and thus illustrate Darwin's theory,—"the weakest to the wall." But, with respect to insanity, there is no evidence that its existence, of itself, naturally tends towards death; rather, the subjects of insanity, with few exceptions, under modern conditions live as long as sane individuals, and under present conditions, are a permanent burden on the rates. Further, if not detained within the walls of an Asylum, they are liable to propagate an inferior race, with a tendency to insanity in the offspring, for, as Clouston says, the neurotic has a special affinity for love and marriage.

There is an impression abroad that insanity is on the increase in proportion to the general population,—an impression, I may say, which would seem to be borne out by statistics.

If we take England and Wales we find that, whereas in 1859 the proportion of the insane to the sane was 1 to 536, in 1903 it was 1 to 288. While the rate of

increase in the general population between 1891 and 1901 was 12·2 per cent. the insane increased 24·4 per cent.—exactly double ; and, roughly speaking, every 100 wage-earning men supports a lunatic, and as the maintenance of a lunatic amounts to £25 per annum, every man in England and Wales is taxed 5s. per annum for this purpose. Finally, we dare not face what the results will be in another generation at the present rate of increase ; it has been said that insanity is increasing in Chicago at such a rate that, 50 years hence, every alternate person will be an inmate of an Asylum !

To come nearer home, we find that the number of certified insane in Cape Colony in 1890 was 572 and on June 30th. 1904 it was 1,744. The population of the Colony in 1891 was 1,252,347, and at the last census, April, 1904, it was 2,409,804. That is to say the general population increased in 13 years 92·4 per cent. and the certified insane increased 193 per cent. In 1891 there was one insane person to every 2,189 of the population, while in 1904 there was one to every 1,381.

It is interesting to note the efforts made, year after year, to explain away this apparent increase of insanity. The English Commissioners, especially, are annually finding excuses, and, we might almost add, apologies for facts clearly revealed in their own statistics.

Many of the reasons advanced, some 20 or 30 years ago, for this increase of the insane population can no longer be logically submitted. It was hoped that when we had gathered into our Asylums all the village half-wits, when, in England, stimulated by the grant of 4s. weekly, the chronics from the Workhouses had been admitted, and when the senile dotards, hitherto a burden on their relatives, had helped to swell the numbers of our Asylums, that then this alarming and steady increase in the number of the insane would naturally become arrested.

Now, we have been doing all this for the past 20 years, and still the proportion of the insane to the sane goes on annually showing an increase. Can, therefore, the arguments, advanced 20 years ago, any longer be adduced as a satisfactory explanation ?

The latest apologist is a reviewer on the English Lunacy Commissioners' Report for 1904, who says * that, if we excluded relapses, and dealt only with cases

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* *Journal of Mental Science* January, 1905.

occurring between the ages of 20 and 54,—the bread-earning period,—we should find, if statistics were available, that, although the ratio of the increase of the insane is *above* this age, *below* it there is a distinct decrease. His argument is practically that our Asylums are being filled up with old people, no longer useful units to the community. Now, I think the statistics I am prepared to submit,—and we have no reason to doubt their universal application, prove quite the reverse, and that the average age of our Asylum inmates is not in excess of what it was, say 20 years ago.

To briefly review the arguments advanced for and against the idea that insanity is on the increase, we ote,—

(1) That, in English Asylums, the special grant of 4s. per week to every lunatic has encouraged Workhouse authorities sending cases to the Asylum that would not otherwise have been dealt with as lunatics.

But now patients are sent more frequently direct to asylums than formerly, when they used to be sent in the first instance to the Workhouse for medical observation, and, therefore, this argument has little to support it.

(2) That the care of the insane has so much improved of late, that the death rate has correspondingly decreased, w th a consequent accumulation of chronic cases.

My statistics, do not bear out this statement, nor do those of the Commissioners; the death-rate in our Asylums varies from year to year, and is no doubt influenced by other causes, and is not necessarily dependent, to any great extent, on improved methods of treatment.

(3) That the recovery rate in our Asylums is decreasing on account of the unsatisfactory nature of the cases admitted; consequently the length of residence of our inmates is increased on the average.

The recovery rate in our Asylums is also variable, but there is actually a tendency to its decreasing.

We are, therefore, forced to face the fact, unpalatable though it may be, that, while other diseases may be diminishing, owing to increased knowledge of sanitary laws, this disease,—the result in a great measure, of our modern form of civilisation, is, if we are to accept the statistics of all civilised countries, steadily on the increase, and our Asylums are becoming quite common landmarks in the country.

But our business, now, is the consideration of the statistics of insanity as found in our local Asylum, and I

have purposely taken the past 15 years for review, being the period during which I have held office there, and being exactly half the present age of the Institution.

At the end of 1890 the population of Grahamstown Asylum was only 171, and on the 31st of December, 1904, it was 341; during this time we have practically filled two other Asylums,—Fort Beaufort and Port Alfred, so that, if these Institutions did not exist, provision would have been necessary in our local Asylum for upwards of 800 cases.

For convenience in analysing the statistics that will now be submitted, I purpose, in the following pages, dealing with my subject systematically, making free use of the form of statistical tables approved of by the Medico - Psychological Association, sub-dividing my subject into Admissions, Discharges, and Deaths during the period under review.

1. The Admissions.

During the past 15 years, 1890-1904, 2,105 cases were admitted; these consisted of 605 male Europeans, 739 male Natives; 364 female Europeans, and 397 female Natives. The numbers admitted in each year varied, reaching its highest limit in 1900, when 241 cases were admitted.

Mental Disease on Admission.—In only two cases was I unable to certify to the existence of insanity. A review of the various forms of mental disease treated is full of medical interest; I have had under my care during the above period 90 epileptic imbeciles, 100 congenital defect cases, 111 epileptics, 90 general paralytics, 1,147 cases of mania of whom 129 were alcoholic in origin, 46 puerperal, and 54 due to old age; 338 cases of melancholia, 22 being puerperal and 16 senile; and 182 dements, of whom 4 were examples of "primary dementia," 99 secondary to acute mental disease, 39 due to old age,—ordinary senile dotage, and 44 evidently caused by some gross cerebral lesion.

The prevalence of these various forms of insanity is of interest, more particularly in connection with the Natives of this country, perhaps because so little is yet known of the neuroses as they specially affect the savage.

A very natural question arises,—"Is the type of insanity changing among the Natives,—the result, perhaps, of civilisation?" That is to say, are the Natives more liable now than formerly to those forms of mental

disease, characterised by depression rather than by excitement,—melancholia rather than mania, for it has been recently recognised that the higher the intellectual development the greater is the tendency to states of depression when insanity appears; and in this connection I pointed out some 11 years ago the prevalence of maniacal conditions, and the comparative rarity of melancholia, among the Natives of this country.

To answer this question I have reviewed the coloured admissions each year from 1890 to 1904 inclusive, classifying them into cases of mania and melancholia. In all 1,131 Natives were admitted; of these 684, or 60·4 per cent. suffered from mania on admission, and 128, or 11·3 per cent. from melancholia. During the first quinquennial period the proportions were respectively 60·5 per cent. and 12·8 per cent.; during the second quinquennial period they were 68·0 per cent. and 8·6 per cent. and during the last five years they were 54·0 per cent. and 12·3 per cent.

The conclusion arrived at from these statistics is that civilisation has not advanced, during these years, to such an extent as to materially influence the type of insanity among the Native races of this country.

With respect to general paralysis among the Natives, I find it is an extremely rare, if not unknown, disease with the pure unsophisticated savage; and this although syphilis is by no means uncommon. It is only when the Native has been long in contact with the white man, learning his bad, rather than his good, characteristics, that general paralysis affects him; it would seem as if alcohol *plus* syphilis accomplishes in the Native what syphilis alone may do in the white man.

The analogue to general paralysis in the Native is "Organic Dementia," where the mental symptoms are from the first those of dementia, and the motor symptoms, as well as the pathology of the disease, resemble general paralysis.

With respect to epilepsy, as a disease occurring outside Asylums, the Director of the Census of 1891 noted it was more prevalent among the white class than among the coloured population, and that the average education of epileptics was distinctly higher than that of the population as a whole.

In Grahamstown Asylum 55 Europeans and 56 Natives were noted to suffer from "Acquired Epilepsy" on admission, being 5·6 per cent. and 4·9 per cent. respectively of the totals.

Acquired Epilepsy is essentially a disease of fully developed brain, and it often finds its victims among men and women of high intellectual powers; it is, therefore, not surprising that it should occur most frequently among the higher educated of the white population; and, when it does exist among the Natives, the cause is often traumatic,—sometimes the result of trephining for fracture of the skull.

Among the European admissions, numbering 969, 463, or 48·7 per cent. suffered from mania, and 21·6 per cent. from melancholia; these proportions are about the same as those noted by other observers.

There were 90 cases of general paralysis admitted,—being 4·2 per cent. of the total, but if we exclude the Natives, among whom, as I have already noted, this disease is practically unknown, we find that 7·8 per cent. of the total European admissions suffered from this disease. The recognised rate in English Asylums is 5·1 per cent., and the higher rate in our Asylum shews its greater frequency among the white population of this Colony than in England.

Social Condition of those Admitted.—According to the census of the Colony, in April, 1904, the total population is put down at 2,409,804; of these 1,557,294 were returned as Single, 738,563 as Married, 106,307 as Widowed, 5,155 as Divorced, and in 2,485 cases the social condition was not specified. To reduce these figures into percentages we find,—

	Europeans.	Coloured.
Single ...	64·87 per cent.	64·41 per cent.
Married ...	31·74 ,,	30·67 ,,
Widowed ...	3·28 ,,	4·60 ,,
Divorced ...	·08 ,,	·20 ,,
Unspecified ...	·03 ,,	·12 ,,
	100·00	100·00

Comparing these statistics with those revealed by the admissions to Grahamstown Asylum we find,—

	Europeans.	Coloured.
Single ...	... 55·3 per cent.	52·4 per cent.
Married	... 35·5 ,,	31·4 ,,
Widowed	... 8·6 ,,	8·7 ,,
Undefined	... ·6 ,,	7·5 ,,
	100·00	100·00

What impresses one most in these statistics is that insanity would appear to be most prevalent in the "widowed" section of the community ,and that the worries of married life really tend to mental break-down, but not to a very marked degree.

Age incidence in Insanity.—For all practical purposes we may divide life into five stages,—childhood, adolescence, adult life, the climacteric period, and old age ; in the following remarks I define childhood as under 15 years of age, adolescence between 15 and 25, adult life from 25 to 44, the climacteric from 45 to 60, and old age from 60 upwards.

Of the admissions 24, or 1·14 per cent. belonged to childhood ; 432, or 20·5 per cent. to adolescence ; 1,142, or 54·17 per cent. were cases in adult life ; 358 or 17·03 per cent. belonged to the climacteric period, and 149, or 7·06 per cent. were types characteristic of old age.

Insanity occurs most frequently during the active and energetic period of life, the cases during manhood and womanhood forming more than half, and this is not to be wondered at, for it is at this age the greatest strains are experienced in the universal struggle for existence.

As regards age incidence the chances of becoming insane would seem to rise to an acme,—attaining its greater frequency between the ages of 30 and 35, thereafter dropping slightly. The great crises of life are specially prone to insanity, and when these periods are safely passed, the tendency is less until the onset of the next crisis.

That insanity should be comparatively rare in old age is not to be wondered at ; the storms of life are over, the sensorium is not so easily influenced by changes in its environment, and there is a gradual mental clouding, —an intellectual haziness,—that sometimes merges into simple senile dotage. The insanity of old age is an insanity of organic disease; atheromatous arteries, resulting in defective vascular supply to the brain, impaired eliminatory powers, cause gradual brain atrophy, besides other graver conditions, and consequent failure of the brain powers.

Causes of Insanity.—The cause of any disease is one of the most important factors in the consideration of its prevention, and this medical axiom applies with equal force to mental as it does to physical diseases.

Some of us are accustomed to ascribe insanity to causes, without knowing why we should do so, there are popular ideas and superstitions to which the physician is liable to give his assent without giving the question much thought, and statements often appear on the Medical Certificates which are as absurd as they are pathologically impossible ; for example, only the other day I admitted a case of insanity, said to be caused from *loss of nerves;* now there was no evidence that any operation had ever been performed whereby any of this patient's nerves had been removed, and the uncalled for statement,—for opinions are not asked for in the Medical Certificate of insanity,—was unscientific and incorrect.

Following the classification of the "Causes of Insanity" adopted by the Medico-Psychological Association, I have gone all over the cases admitted to Grahamstown Asylum during the past 15 years, with results alike interesting and important.

As the "Causes," as recorded on the legal papers which accompanied every patient on admission, are frequently unreliable, often wrong, and even occasionally misleading, I have ascertained for myself, in most of them, definite information from relatives, directing my enquiries into the family and personal history of each case, and when this method failed, the case has been specially studied with the object of ascertaining the probable cause of the disease.

The information supplied by relatives is unfortunately often unreliable ; for example, if we take the important question of *heredity* as a probable cause of insanity, it is extraordinary how the relations will deny, and deny most emphatically, any knowledge of the disease existing in any other of their family. It is only by judicious examination, and asking leading (and sometimes misleading) questions that the physician is enabled to get at the truth. And our examination of the relatives should not stop at heredity to mental disease, but our enquiries should be directed to the existence, or otherwise, of any of the great family of the neuroses, for it is a well known fact that a neurotic parent may readily beget a mentally enfeebled child, and the drunken father is the most frequent cause of imbecility in his progeny.

Considering the various causes of insanity in the order of their frequency, we find that a *hereditary predisposition* of an ancestral neurosis, was ascertained in 402 out of a total of 2,105 cases ; this number does not necessarily mean that it was not present in some of the

other cases as well, but only that, in the others the histories were so defective, in this respect, that no practical use could be made of the information supplied.

Heredity, therefore, existed in 13 per cent. of all the causes of insanity, and occurred in 19 per cent. of all the cases. In England during 1903 it formed 21·5 per cent. or occurred in 1 out of every 4·5 cases, while in Grahamstown Asylum 1 out of every 5 patients had a hereditary tendency to mental disease.

The per centages were 14·3 per cent. for males (24·3 per cent. for White, and 6·2 per cent. for Coloured) and 27·4 per cent. for female (43·3 per cent. for White and 12·7 per cent. for Coloured).

Is is interesting to note that among the white population of this Colony heredity is more frequently an ascertained cause of insanity than it is in England,—a fact worthy the most serious consideration,—that it occurs most frequently among females, and, finally, that even the Natives are not entirely free from it.

The next cause, in point of frequency, is *intemperance in drink*, occurring in 374 instances. This is a very interesting fact, for recently a writer attempted to prove that drunkenness does not tend to induce insanity! Apart from our every-day experiences, the statistics of Grahamstown Asylum, as well as of all the Asylums of the civilised world, prove, without the shadow of a doubt, that intemperance in alcoholic stimulants is a most potent factor in the production of mental disease.

It was a recorded cause of insanity in 12·1 per cent. of the total causes, or 13 per cent. of the total cases; that is to say in 1 out of every 7 cases it was the assigned cause.

The per centages were 25·4 per cent. for males,—a fourth of all the male admissions,—(29 per cent. for Whites and 22·3 per cent. for Coloured) and 4·08 per cent. for females (6·2 per cent. for Whites and 2·03 per cent. for Coloured). In England during 1903 it was 22·8 per cent. for males and 9·5 per cent. for females, so that, in this Colony, drink causes insanity more frequently among white males than it does in England, although it is a cause, with women, much less frequently.

The question of drunkenness, as a national vice, is one worthy the careful consideration of medical men, and it is gratifying to note that it is beginning to receive that attention its importance deserves; that £160,000,000 should be spent in England during 1904, and that drunkenness should be responsible for 90 per cent. of

all the crimes committed, is surely not creditable to a nation boasting the highest civilisation. If any real good could be proved from this enormous expenditure, even its influence in the production of crime might be forgiven, but the fact is that nothing but evil can come from the use of alcohol as a luxury, and therefore its condemnation is clearly indicated by all philanthropists.

Heredity may not be prevented,—for a few generations at all events,—but surely intemperance can be, and should be, if we are to keep the people out of our Asylums. It is hardly creditable to us, as a civilised race, that one of the chief sources of revenue to the Government is derived from the sale of a poison which is admittedly filling our gaols with criminals, our workhouses with paupers, and our Asylums with lunatics!

Similar to alcohol, in its deleterious effect upon the mind, is the evil habit, which is certainly on the increase, among the Natives of this country, more especially the Hottentot and half-caste races, of smoking *dagga* (Kafir, *Um Ya*), Cannabis sativa. The Native not only inhales the smoke, but likewise swallows some of it, and it causes first intoxication, then intense excitement,—this artificial stimulation of the nerve centres producing, in time, a well-marked type of mental disease.

Insanity is a disease that tends to recur,—one attack leaving behind it a mental instability that, with even less cause, is liable to induce a mental break down again. This fact is clearly proved by my statistics referring to *previous attacks of insanity*. In point of frequency it occurs third in the list of causes, accounting for 354 cases, being 16·7 per cent. of the total. "Previous attacks," as a factor in the recurrenee of insanity is more frequent among females (20 per cent.) than among males (14·9 per cent) and more frequent among female Whites, where it occurred in 26·3 per cent. of all my cases.

The various *crises* of life,—adolescence, the climacteric period, and old age, all exercise grave influences on the mind and its functions. The mental characteristics of the boy or girl on attaining adolescence, the depressing and vague feelings experienced during the "change" in woman, and the restlessness of old age, living his life in the past over and over again, are all too well known psychic symptoms of the crises to need more than a passing reference.

It is not surprising that many such cases should break down entirely mentally, — especially if there

exists some other cause inducing, in the subject, an inherent instability of the mental centres, for it might truly be said that these centres, affected abnormally by the mental influences induced in them by the crises, are already on the borderland.

In Grahamstown Asylum 321 cases were types of insanity of the crises, being 15·6 per cent. of the total. Women, as might be expected, are more liable to insanity during these periods than men, a form of mental disease that might be termed "crisical insanity," or "the insanity of the crises." Among women the rate was 19·4 per cent., and among men it was 12·8 per cent.

The various conditions attending *child-bearing*,—pregnancy, the puerperium, and lactation,—are well known factors in the causation of mental disease. The normal mental condition of women during these periods is often one of extreme eccentricity, amounting to actual irresponsibility, and the grave physiological changes that are embraced in the various processes concerned in child-bearing, not infrequently,—especially if some other factors, such as heredity or "previous attacks" exist,—result in total mental break down. I have had 124 such cases under my care,—being 16·3 per cent. of the total number of women admitted.

While *masturbation* is often a consequent of insanity, we must not forget that among youths, otherwise fairly healthy, the habit, if persisted in, rapidly tends to undermine the intellectual faculties; and, if not arrested, may induce some of the most incurable forms of mental disease with which we are acquainted.

It is doubtful whether masturbation, occurring in a youth, will result in insanity by itself, but given a neurotic boy, or boy with a bad mental family history,—and it is in these cases that masturbation is most frequently persisted in,—then the probability of insanity developing is very great indeed.

In 111 cases it was the ascribed cause,—in all, with two exceptions, males. That masturbation is common among females is undoubted, but our information in this direction is naturally so unreliable that I am unable to give this factor the important position in my statistics I am sure it deserves.

I have detailed the chief causes of insanity; these occurring with less frequency than those already referred to, therefore, only require a passing notice. Insanity may result from loss of friends or relations, financial worries or difficulties, over-work, whether mental or

physical, religious excitement, such as is often seen during revivals, love affairs, including seduction,—a condition that more readily affects the female,—fright or nervous shock.

It is seldom, however, that any of these causes alone will induce the mental break down. We are accustomed to look upon some previous mental instability as the predisposing influence in the causation, and any one or more of these conditions as the exciting causes.

We further distinguish between mental and physical causes of insanity; these latter may be considered as the mental causes. The physical causes include syphilis with 56 cases, accidents of various kinds,—frequently head injuries,—with 72, privation and starvation with 77. Various other bodily diseases or disorders, such as phthisis, fevers, heart disease, paralysis, epilepsy, etc., account for 253 cases; and, finally, there were 137 examples of congenital defect, such as idiocy and imbecility.

Occupation of those Admitted.—The question whether any special trade or occupation disposes to insanity is one that can only be satisfactorily answered by a reference to carefully drawn up comparative statistics.

Labourers and those engaged in domestic duties head the list with 582 and 537 cases respectively. As this class forms a large proportion of the population I do not know that any important inference can be drawn from these statistics.

It is interesting to note that the professional class, comprising medical men and barristers, are least liable to insanity, and I have only had 17 such cases under my care.

Teachers and clerks were equal in number, viz.,—46, and 104 farmers were admitted.

Industrial pursuits, *i.e*, tradesmen, supplied a large number of cases; this is interesting, for tradesmen in this Colony do not form the preponderating class. That the clever mechanic is well paid is undoubted, that he lives up to his income is the rule, and that he acquires habits, conducive to the production of insanity, is very probable.

Time Incidence of Insanity.—Is insanity more prevalent one part of the year than the other? To answer this question I have reviewed the admission rate, each month for 15 years; and while my conclusions may hardly be considered as final, they should form a basis for future observations.

I noted that the number of admissions increased with the hot weather, falling again on the approach of winter. December headed the list with 208 admissions; there were more admissions during February and March than in January, and fewer during April, May, June and July than during any other months. The lowest admission rate occurred during April and May. There is a slight rise in June and July, and a little fall again in August; thereafter the rise is steady as the summer approaches.

The time incidence of insanity thus shows a double wave, with a fall during the autumn and spring. Whether the marked increase of insanity during December is due to the heat, or to the usual Christmas festivities, I am not in a position to say.

II. The Discharges.

As the information supplied in connection with the admissions must necessarily apply, to some extent, to the discharges as well, a few brief remarks on questions not previously dealt with are all that will be required.

During the 15 years under review 1,588 cases were discharged; of these 710 were "recovered," 446 "relieved," and 432 "not improved."

The Recoveries.—When calculated on the total number of admissions, the recovery rate works out at 33·2 per cent. or nearly one-third of the total. If we exclude admissions by transfer from other Asylums, the recovery rate since the opening of the Asylum is 34·53 per cent. The average recovery rate in English Asylums for the 10 years ending 1903, was 37·69 per cent.; the average in Scotch Asylums for 1903 was 41 per cent., and 39 per cent. for the five years ending 1899. In all the Cape Colonial Asylums the average recovery rate for the 10 years 1894-1903 was 33·4 percent.; during the half year ending 31st December, 1904 it was 50·8 per cent. for Europeans, and 22·5 per cent. for Natives.

In reviewing the recovery rates in asylums of all civilised countries for a number of years, it is depressing to note a tendency to a steady decline, so that there can be no doubt the type of insanity, as found in our asylums, is becoming a less curable one, or else our methods of treatment are less successful than they formerly were. As a consequence of this decreasing recovery rate, the average length of residence of our patients is increasing, thus increasing materially the cost of maintaining our Institutions.

Duration of the Disease, on Admission, in the Recoveries.—The asylum physician is constantly impressing upon the general practitioner and the public the great importance of dealing with insanity in its earliest stages. Unless a private residence has all the armamentarium for the treatment of such cases, and how few private houses can be easily converted into asylums, the best place for an insane patient is undoubtedly an asylum, not when the physician has exhausted all his resources, and all hope abandoned, but during the very early stage of the disease, so soon, that is, as it has made itself evident, and there is no doubt about the character of the malady.

It may be said that this is only an opinion, and an opinion given by one perhaps biassed; such an opinion may be open to question by the family physician, who however, may be financially interested in deferring sending a case to the asylum, and whose professional credit is at stake; but after all, it is the interests of our patients that should be considered even before that of our professional reputation, and I am now prepared to advance statistical proof that it is chiefly the early treated cases that get well in our asylums, the large proportion of our chronic cases being those that were sent too late to effect any improvement.

I find that, among my recoveries, in 53·92 per cent. of the males and 39·51 per cent of the females, a total of 48·58 per cent., the duration of the insanity was within three months on admission, and it was the first attack.

Then in 14·72 per cent. for males, 20·56 per cent., for females,—total 16·89 per cent., the attack was the first but the duration was more than three months, and less than 12 months on admission.

Further, in 20·09 per cent. for males, and 32·25 per cent. for females,—total 25·71 per cent. there had been one or more previous attacks, and the duration of the disease was still within 12 months on admission.

The number of attacks does not appear to diminish the chances of recovery; each attack, however, entails a longer residence in the Asylum, and, as a rule, in these recurring cases, by and bye an attack occurs from which there is no recovery,—the case passing into hopeless dementia.

In 7·83 per cent. for males, and 7·65 per cent. for females,—total 7·77 per cent.—the duration was more than 12 months on admission, and, finally, in the small

proportion of 1·19 per cent. there was congenital defect ascertained,—the recovery in these cases being naturally only partial.

We, therefore, find that in nearly half of all the recoveries the duration of the disorder was within three months on admission, and the prospects of ultimate recovery diminish the longer the insanity has existed before admission to the Asylum.

Mental Disease in the Recoveries.—With respect to the form of the mental disorder in the cases discharged, as might be expected, such are almost solely confined to mania and melancholia; 44·7 per cent of all cases treated of the former disease, and 42·3 of the latter, recovered.

Not one case diagnosed as general paralysis got well, and only 2 considered as types of "primary dementia," —a condition closely allied to stuporose melancholia. 62·8 per cent. of all the cases of mania *a potû*,—alcoholic insanity,—recovered, and 66·1 per cent. of puerperal insanity, both melancholia and mania.

These two forms of mental disease,—alcoholic and puerperal insanities,—give the highest recovery rate of all the other forms.

The comparatively low recovery rate in our Asylums is partly, at all events, explained by the large number of incurable cases admitted,—cases that tend to swell the death rate, and increase the chronic residuum of dements and imbeciles, so common, unfortunately, in our modern asylums, and for whom a recent authority advocated, in the medical press, the drastic treatment of the lethal chamber!

Relieved and Not Improved.—One method whereby vacancies are obtained in our local Asylum for the reception of acute cases is the transferring of chronic, incurable, and quiet patients to the Asylums at Fort Beaufort and Port Alfred.—institutions that now contain 316 and 253 patients. That these transfers are well designated "incurable" is proved by the fact that Fort Beaufort only shows a recovery rate of 5·7 per cent. during the past 11½ years, although this Asylum admits patients direct from its neighbourhood,—patients who may possibly be recoverable cases, and Port Alfred's recovery rate is only 1·9 per cent. during 15 years,— this Asylum only admitting cases by transfer,—presumably incurable.

Another method adopted for disposing of uncured patients is to hand them over to the care of their friends

or relatives; this plan is not so common as it should be, relatives, as a rule, not caring to be burdened with their infirm friends, preferring that this "skeleton in the cupboard" should remain hidden and unseen by every one.

By these two methods,—transferring to other asylums, and discharging to the care of friends,—we disposed of 558 patients during the past 15 years, being 26·5 per cent. of the total number of admissions.

III. The Deaths.

In another place* I have already dealt with the pathological statistics of Grahamstown Asylum; it will be necessary, therefore, only to treat this subject here in a purely statistical manner.

During the past 15 years 325 deaths occurred, being 9·76 per cent. on the average number resident,—11·24 per cent. for males, and 6·92 per cent. for females.

The death rate is lower in our local Asylum than it is in English asylums, where, for the ten years 1894-1903 it was 11·36 for males, and 8·34 per cent. for females.

Age at Death.—This can only be given in quinquennial periods; the largest number of deaths occurred between the ages of 35 and 45, and the same rule holds good in English asylums. Only 12 attained the age of 70, and only 8 exceeded the age of 75.

The mean age at death was 50 for males and 51 for females in English asylums, whereas here it was 43·40 for both sexes. Asylum patients die younger in this country than they do in English asylums; a fact in part explained by the large number of tubercular cases we find among the Native insane.

To shew the physical infirmity of the insane as a class it is noted, by the English Commissioners, that whereas among the general population the death rate is 1·74 per cent. for males and 1·52 per cent. for females; in asylums it is 11·36 per cent. and 8·34 per cent.

Causes of Death.—I ascertained by *post-mortem* examination the causes of death in 232 cases. Diseases of the nervous system proved fatal in 37·8 per cent.; respiratory diseases in 15·6 per cent.; of the digestive organs in 11·7 per cent.; of the circulatory apparatus in 8·2 per cent.; exhaustion from mental disease in 10·6 per cent.; constitional diseases in 9·8 per cent., and senile decay in 5·1 per cent.

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* *Journal of Mental Science*, Oct. 1902; page 645.

It is thus seen, as might have been expected, that diseases of the nervous and mental systems are accountable for nearly half of all the deaths in our Asylum, and it is interesting to note that these fatal maladies tend to occur at or about the prime of life, thus assisting materially in reducing the average age at death, as compared with sane communities.

If we were to summarise the ultimate history of every 100 patients admitted to one of our asylums, we should find roughly that,—

33 per cent. recover.
27 per cent. are discharged not recovered.
10 per cent. die ; and
30 per cent. remain behind to increase the population of the Asylum,—chronics.

Cost of Asylum.—A few remarks on the cost of maintaining our local Asylum may not be out of place here ; it will help to shew what an expensive necessity the care of the insane is to the State, and will give us a vague idea as to the enormous amount of money which must be expended in countries like England, where insanity is extensively distributed.

During the past 15 years the average number of patients resident in Grahamstown Asylum was 233·58, the average cost per diem was 2s. 2½d. per patient, amounting to £57 17s. 0¾d. per annum ; when receipts from private patients are deducted, then the actual cost to the Government works out at £39 2s. 3½d.

This only included actual cost of maintaining the patients, clothing, feeding, nursing, and furniture. In addition, large sums of money are annually voted for additions, repairs, and necessary improvements to the buildings. Altogether the large sum of £51,690 has been spent on our local Asylum during the past 15 years.

The total cost to the Colony for the maintenance of their six asylums during the first six months of 1904 amounted to £58,032 6s. 1d., upwards of £100,000 per annum, and over £340,000 has been spent on new buildings, etc., during the past 15 years on Colonial asylums.

It will thus be seen how terrible the burden of the insane is ; there may be a white man's burden, but truly this is the burden of civilisation, the cost to the nation of our modern form of civilisation, and the penalty we have to pay for infringing the simple laws of nature.

Conclusions.

I will now endeavour to summarise the observations I have submitted to you, and attempt to draw a few lessons therefrom.

I would direct special attention to the facts statistics teach us as to the causation of insanity; for, after all, to know the cause of a disease is half the battle won in curing or preventing it.

I have endeavoured to prove to you by statistics that the two great factors in the causation of mental disease are: (1) a hereditary predisposition to mental instability, and (2) intemperance in the use of alcoholic stimulants. Remove these two causes, and I daresay we might soon have to close our asylums.

Now, a hereditary tendency to mental disease may be originally caused by in-breeding, specific disease in one or other of the parents, or the drinking habit,—the latter being, in fact, the chief cause of idiocy and imbecility in the offspring.

A hereditary tendency to mental disease is found in about 25 per cent. of all cases of insanity, is more frequent among males than females, and is more common among the better and wealthier classes than among the poorer classes,—proving that the education bestowed upon the richer section of the community does not exercise its influence in the selection of mates in matters matrimonial, where more frequently convenience or love replaces reason. The royal families of Europe, than whom few are better educated, illustrate this fact, for insanity is terribly inherent in them.

The other chief cause of insanity,—excess in the consumption of alcohol,—I have already referred to. This cause is more common among the poorer classes than among the well-to-do; it has been said that education is the great preventative of intemperance, but the lower classes, with free education, are well enough educated now to test this theory, and we find that the consumption of alcohol is on the increase, and that the revenue of our country depends very much upon this item of income.

Medical men hold that alcohol is not a food, and that the body can be maintained in better health, under all circumstances, whether in the tropics or in the Arctic region, without it. We know, further, that it is a poison

to almost every organ and tissue of the body, and the reason is early unseated by its abuse.

Its excessive use reduces the powers, both mental and physical, and, in this age, when men work more with their brains than with their hands, the frequent sipping of alcoholic beverages retards mental action, and diminishes the capacity for work.

Further, the money spent on alcoholic luxuries is out of all proportion to the actual value received, and might well be diverted into more useful channels. The late Chancellor of the Exchequer, speaking in the House of Commons, said that alcohol was the commonest cause of poverty and crime, and I have shewn that it is directly accountable for one out of every 7 cases in Grahamstown Asylum, and nearly one out of every 3 male Europeans.

We know of no way of inducing temperate habits in the people except through the Legislature; we, as medical men, know its evils; we see this subject from another stand point than the public; it is our business to interest not only the people but also our Government in this matter, and it is the duty of the Government, as being the great *vox populi*, to legislate in the interests of the health of the people, both for now and hereafter. Such legislation should be in the interests of the people, should not be influenced one way or another by political or party bias, and the few wine-growers and publicans, who make money at the cost of souls and bodies of many, should not be considered.

Preaching temperance appears to do little good; therefore, we appeal to our Government, and during these hard times, with a poor revenue,—the hint is freely given,—I would advocate an increased duty on all excisable liquors, whether produced in this country or imported. The duty should be such as to make the purchase of alcohol, as a luxury, almost prohibitive, except to the very wealthy. By this means the revenue of the Colony would be increased, or an arrest made in the sale of what is actually a poison,—either being for the good of the race.

Finally, to summarise my conclusions, we note:—

(1). That insanity is steadily on the increase in this Colony.

(2). That insanity should be regarded as one of the most preventable of diseases.

(3). That the two chief causes of insanity are heredity and intemperance.

(4). That heredity is due to neglect to follow some of the simplest laws of Nature.

(5). That the same rules should be made to apply to marriage as are followed by intelligent breeders of animals.

(6). That if similar rules were adopted, in a few generations heredity, as it affects the neuroses, would disappear.

(7). That intemperance in drink, of itself or in conjunction with other causes, is a most potent factor in the causation of insanity.

(8). That it is reasonable to infer insanity would decrease were temperance more general.

(9). That general education does not seem to be the cure for intemperance,—the drinking habit increasing while the education of the people is improving.

(10). That compulsory temperance is the only way whereby we can reduce the terribly heavy burden of insanity.

(11). That legislative interference is called for, apart from all sentimental and party objections.

(12). That it is probable the means to this end will be found in levying increased taxation on all alcoholic beverages.

(13). Finally, that we, as medical men, and as representing a Medical Society, have higher and more sacred duties that the cure of disease. Our duty is to the people, as well as to the Government, in advising both in all matters pertaining to the health and their welfare, so that the greatest good to the greatest number may result.

Note.—The following resolutions were passed by the Branch, and the Secretary was instructed to forward them to the Hon. Dr. Jameson, Prime Minister, and Senior Member for the City:—

Resolved--

"That this Eastern Province Branch of the British Medical Association recognises the serious increase of insanity in this Colony, and is of opinion that this increase is, to a large extent, due to the excessive use of alcoholic stimulants in a form that can neither be considered a food nor a medicine; further, owing to the form in which it is usually sold, it is more of a poison to both body and mind than a stimulating luxury.

"That this Branch urges upon the Government of the Colony, in the interests of the health, both present and future, of the people, to so discourage the consumption of alcohol as a beverage, by means of increased taxation, or such other means as the Government may think fit, as will be an inducement to temperance, in the hope thereby of diminishing crime, poverty, and insanity,—all of which are mainly caused by intemperance.

"Further, that provision be made for the teaching in our Schools of the simpler laws of hygiene, and the evils and dangers of intemperance."